



ASHT SERIES HIGH PERFORMANCE PRESSURE & TEMPERATURE TRANSDUCER - UP TO 500 PSI

The ASHT Series feature both pressure and temperature sensors within a single transducer package. These high accuracy transducers have been designed for use in demanding motorsport and on-vehicle automotive testing industries. They are ideal for high precision data acquisition or control systems. The ASHT can also be installed directly onto vehicles or as part of a test stand or dyno.

Offering a high level of reliability and endurance the ASHT is protected against the high vibration, shock and high temperatures found in harsh environments. Continuous operation up to 300°F allows for installations in hot zones. The modular construction and programmable amplifier provide a fast delivery time for standard and custom configurations. Pressure ranges are available between 0-15 psi and 0-500 psi in either Absolute, Gauge or Sealed Gauge reference.

The industry standard 3-wire electrical connections for the pressure and 2-wire for the temperature allow integration with most common ECU's and data logging systems. Also available with a fitted Hermetic Connector option.

The ASHT Series are race proven in many formula around the world.

TECHNICAL SPECIFICATIONS

Pressure Reference	Absolute, Gauge and Sealed Gauge
Standard Pressure Ranges (psi)	15, 30, 75, 150, 250, 300, 500 <i>For ranges above 500 psi see ASHT high range datasheet</i>
Proof Pressure (overload)	300% of range
Burst Pressure	>1000% of range
Accuracy	±0.08% FS combined linearity & hysteresis (CNLH)
Thermal Effects	<±0.25% FS TEB within Compensated Range
Outputs	Pressure: 0.5V to 4.5V (±0.5%) Temperature: NTC, 2-wire 10KΩ@25°C or 2-wire PT1000
Power Supply	5V (±0.5V) Ratiometric or 8-16Vdc (<20mA)
Operating Temperature Range	-5°F to 300°F (-20°C to +150°C)
Compensated Temperature Range	32°F to 250°F (0°C to +125°C)
Construction	Stainless Steel
Electrical Connection	20", 26AWG 55spec Wire + DR25 Sleeve or Connector or Hermetic Connector. 8STA1-Y02-05PN170
Process Connection (Thread Size)	Please see Part Number Configurator - Page 2
Protection Class	IP67 (Cable Option), Hermetic Seal (Connector Option)
EMC Protection & Vibration	EN 50082-1 and Mil-Std-810C, curve L, 20G
Weight	1.44oz (Cable Option), 1.16oz (Connector Option)
Options	Cable Spec, Connector Fitted, Thread Size & Labelling

PMC/KA Sensors adopts a continuous development program which sometimes necessitates specification changes without notice

Sensors For Motorsport

Features

- Built-in Temp. Sensor
- Cable or Connector
- 0-15 to 0-500 psi
- 300°F Operation
- ±0.08% Accuracy

Applications

- Coolant
- Brakes
- Water
- Boost
- Fuel
- Oil

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Represented by:



PART NUMBER CONFIGURATOR

ASHT - [] - [] - [] - [] - [] - [] - [] - []

Pressure Reference

Absolute Gauge — A
Gauge — G
Sealed Gauge — S

Pressure Range

15 psi — P015
30 psi — P030
75 psi — P075
150 psi — P150
250 psi — P250
300 psi — P300
500 psi — P500

Supply Voltage

5V Ratiometric — 4
8-16Vdc — 5

Accuracy (CNLH)

±0.08% FS Combined Linearity & Hysteresis — A

Accuracy (Thermal Shift)

<±0.25% TEB within compensated range — 1

Electrical Connection

26AWG, 55spec Wire + DR25 Sleeve — A
Hermetic Connector, 8STA1-Y02-05PN170 — 5PN

Process Connection

1/8 Inch NPT Male (ANSI B1.20.1) — B
M10 x 1 Male (ISO 6149-2) — D
M8 x 1 Male (ISO 6149-2) — F
3/8 Inch 24 UNF - No Cone (SAE J1926-2) — J

Temperature Sensor Type

NTC, 2-Wire 10KΩ@25°C — F
PT1000, 2-Wire ClassA — H

Cable Length

20 inches — A20

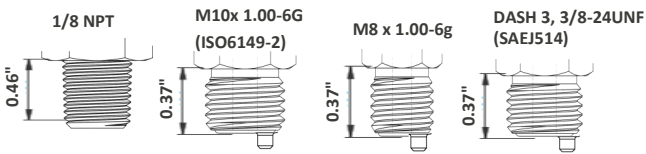
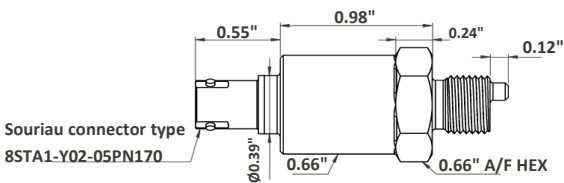
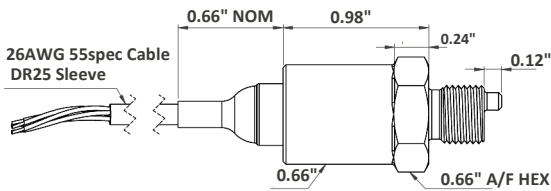
Special Codes

None — 000

The KA configuration tool is used to specify a standard KA Sensor, other options are available.

MECHANICAL & TEMPERATURE DETAILS

Dimensions in inches



	NTC10KΩ	PT1000
Temp °F	Output Ω	Output Ω
-25	120370.00	882.200
-5	71668.00	921.600
15	44087.00	960.900
32	27936.00	1000.000
50	18187.00	1039.000
70	12136.00	1077.900
75	10000.00	1097.300
85	8284.50	1116.700
105	5774.20	1155.400
125	4120.60	1194.000
140	2967.30	1232.400
160	2181.70	1270.800
175	1628.80	1309.000
195	1233.50	1347.100
215	946.59	1385.100
230	735.47	1422.900
250	578.10	1460.700
265	459.36	1498.300
285	368.75	1535.800
300	298.86	1573.300

ELECTRICAL DETAILS

Cable Option				
+Ve Supply	0V Supply	Output (P)	Output (T)	Output (T)
Red	Black	White	Blue	Green

Hermetic Connector Option				
+Ve Supply	0V Supply	Output (P)	Output (T)	Output (T)
Pin 1	Pin 2	Pin 3	Pin 4	Pin 5

Sense
Analyze
Control

Sensors For:

- Temperature
- Acceleration
- Pressure
- Position
- Torque
- Speed
- Angle
- Force

Services For:

- Data Logging
- Telemetry
- Controls
- Wiring

Contact Us

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